

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RUSSELL J. SOKAC, KATHLEEN M. MARTIN,
MICHAEL J. MARTIN and LLOYD W. DURFEY

Appeal No. 97-2720
Application No. 08/354,387¹

ON BRIEF

Before ABRAMS, McQUADE, and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 12, which are all of the claims pending in this application.

¹ Application for patent filed December 12, 1994.

Appeal No. 97-2720
Application No. 08/354,387

We AFFIRM-IN-PART.

BACKGROUND

The appellants' invention relates to a sheet feeder with a variable length sheetpath. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Scott 1904	760,402	May 17,
DuBois 1987	4,702,466	Oct. 27,
Paxon 1991	5,050,859	Sep. 24,
Watanabe 1992	5,101,241	Mar. 31,

Claims 1, 4, 6 and 9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by DuBois.

Claims 2, 3, 7 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over DuBois in view of Watanabe.

Claims 5 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over DuBois in view of Scott.

Claims 11 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over DuBois in view of Paxon.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 10, mailed February 14, 1997) for the examiner's complete reasoning in support of the rejections, and to the appellants' brief (Paper No. 9, filed November 29, 1996) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The anticipation issue

We sustain the examiner's rejection of claims 1, 4, 6 and 9 under 35 U.S.C. § 102(b) as being anticipated by DuBois.

To support a rejection of a claim under 35 U.S.C. § 102(b), it must be shown that each element of the claim is found, either expressly described or under principles of inherency, in a single prior art reference. See Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

Claim 1

Claim 1 is drawn to a sheet feeding apparatus comprising, inter alia, a fixed support for supporting a stack of sheets; a movable feedhead contacting the stack of sheets; and a variable length sheath path between the feedhead and a sheet delivery area.

DuBois discloses a sheet material feeder. As shown in Figures 1, 5 and 6, the sheet material feeder includes a feed

tray 11, which includes a paper storage well 12, a sheet separator mechanism in the form of a vertically movable separator 13, and a transfer table 14. The feed tray 11 feeds the separated sheet to main feed roller 25 of copier 10. Sheet separator 13 is vertically movable under the force of gravity on vertical guides 15. Transfer table 14 is pivotally mounted to attachment members 16 by means of pins 30 carried by each of attachment members 16. Transfer table 14 comprises upper and lower guide members 31 and 32, each of which have flared paper receiving ends 33 and 34, respectively, defining a mouth or throat 35 adapted to receive a sheet of paper S from stack ST. An arm 36 is secured to upper guide member 31 and extends beneath separator 13. Arm 36 is configured to guide a sheet S to mouth 35. Separator 13 will move downwardly on guides 15 under the force of gravity and by virtue of arm 36 transfer table 14 will move downwardly therewith, so that the mouth 35 between upper and lower table members 31 and 32 is always positioned to receive a sheet S from stack ST. Separator 13, as seen from the underside in Figure 7, includes a drive motor 38 which through a gear train 39 and a one way clutch (not shown) drives a shaft 40 having

feed rollers 41 and 42 at opposite ends thereof. The feed rollers 41 and 42 engage a sheet S on stack ST at spaced apart points adjacent to leading edge thereof to feed one sheet S of the stack ST at a time. Pivotally mounted at each side of separator 13 by means of pins 43 are sheet corner separators 44 including a tang 45 which rest on top of the sheet stack ST. The separator tangs rest on the leading corners of the stack ST and allow only one sheet to be fed at a time.

The appellants argue (brief, pp. 4-5) that DuBois does not anticipate claim 1 since the sheetpath in DuBois does not have a variable length between the feedhead and a sheet delivery area.

We do not agree. We agree with the examiner's reasoning (answer, pp. 6-7), which we adopt as our own, that the distance between the feedhead (i.e., separator 13) of DuBois and the sheet delivery area at the main feed roller 25 of the copier 10 changes as the stack ST is depleted. Thus, DuBois discloses a variable length sheetpath between his feedhead (i.e., separator 13) and a sheet delivery area (i.e., the main feed roller 25 of the copier 10).

Since each element of claim 1 is found in DuBois, the decision of the examiner to reject claim 1 under 35 U.S.C. § 102(b) is affirmed.

Claims 4, 6 and 9

The appellants have grouped claims 1, 4, 6 and 9 as standing or falling together.² Thereby, in accordance with 37 CFR § 1.192(c)(7), claims 4, 6 and 9 fall with claim 1. Thus, it follows that the decision of the examiner to reject claims 4, 6 and 9 under 35 U.S.C. § 102(b) is also affirmed.

The obviousness issues

We sustain the examiner's rejection of claims 2, 3, 5, 7, 8 and 10 under 35 U.S.C. § 103, but not the rejection of claims 11 and 12.

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18

² See page 4 of the appellants' brief.

USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Moreover, in evaluating such references it is proper to take into account not only the specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Claim 2

Dependent claim 2 adds to parent claim 1 the limitation that the variable length sheet path comprises "a telescoping sheet guide."

Watanabe discloses a telescopic paper guide means movable to selected receiving trays. As shown in Figure 4, a feeding mechanism 33 delivers sheets of paper to various trays 15a-15f of a tray unit 15. The feeding mechanism 33 includes a movable guide 65 and a movable unit 69 which is connected to the outlet of the movable guide and vertically movable beside the tray unit 15. The movable guide 65 comprises a pair of

parallel guide plates 67 which horizontally extend from the discharging rollers 32, a pair of first parallel movable guide plates 68 which are respectively pivoted on the extended ends of the guide plates 67, a pair of parallel guide plates 70 which are integrally formed with the movable unit 69 and extend from the unit 69 towards the discharging rollers 32, and a pair of second parallel movable guide plates 71 which are respectively pivoted on the extended ends of the guide plates 70. The first guide plates 68 are slidably fitted into the second guide plates

71. Therefore, the movable guide 65 contracts or extends while it swings upward or downward in response to the upward or downward movement of the movable unit 69.

In applying the above-noted test for obviousness, we reach the conclusion that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the sheethpath of DuBois with telescoping sheet guide as suggested by Watanabe's movable telescoping guide 65 to provide precise passage of a sheet over the

variable length sheetpath from DuBois' feedhead (i.e., separator 13) to his sheet delivery area (i.e., the main feed roller 25 of the copier 10).

The argument advanced by the appellants (brief, p. 6) does not convince us that the subject matter of claim 2 patentably distinguishes over the applied prior art. As to the argued deficiencies of each reference on an individual basis, we note that nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. See In re Merck & Co. Inc., 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986). As to the argued lack of a suggestion to combine the prior art disclosures, it is our opinion that an artisan³ would have recognized the self-evident advantage

³ An artisan must be presumed to know something about the art apart from what the references disclose (see In re Jacoby, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962)) and the conclusion of obviousness may be made from "common knowledge and common sense" of the person of ordinary skill in the art (see In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)). Moreover, skill is presumed on the part of those practicing in the art. See In re Sovish, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985).

provided by Wantanabe's precise passage of sheets over a variable length sheetpath (i.e., movable guide 65) and would have been motivated by that advantage to modify DuBois in the manner set forth above.

For the reasons set forth above, the decision of the examiner to reject claim 2 under 35 U.S.C. 103 is affirmed.

Claim 3

Dependent claim 3 adds to parent claim 2 the limitation that the apparatus further comprises "a controller, in communication with said feedhead, for actuating said feedhead to advance a sheet from the stack of sheets to insure delivery to the delivery area at a selected time."

The appellants argue (brief, pp. 6-7) that this limitation is not taught or suggested by the applied prior art.

The examiner responded to the appellants' argument by stating (answer, p. 8) that "[i]n the photocopier of DuBois the selected time would be when someone wants a photocopy."

In our view, the subject matter of claim 3 reads on the device of DuBois as modified by Watanabe as set forth above with respect to claim 2. DuBois' feed rollers 41 and 42 are only driven to feed a new sheet when the motor 38 is energized when the switch 73 (see Figure 11 of DuBois) is closed to feed the sheet to the transfer table 14. Thus, the switch 73 is a controller, in communication with the rollers 41 and 42 in separator 13, for actuating the rollers 41 and 42 to advance a sheet from the stack of sheets. DuBois' transfer table utilizes feed rollers 64 and 65 driven by motor 66 to feed the sheet from the transfer table 14 to the photocopier feed roller 25. DuBois' feed rollers 64 and 65 are only driven to feed the sheet from the transfer table 14 when the motor 66 is energized when the switch 72 (see Figure 11 of DuBois) is closed. In our view, this feeding of the sheet from the transfer table to the photocopier feed roller 25 (i.e., the delivery area) insures delivery of a sheet to the photocopier

feed roller 25 at the time the switch 72 is closed (i.e., a selected time).

For the reasons set forth above, the decision of the examiner to reject claim 3 under 35 U.S.C. 103 is affirmed.

Claim 5

Dependent claim 5 adds to parent claim 1 the limitation that the apparatus further comprises "an access door enclosing an area of the sheet stack, said access door operatively associated with said feed head [sic, feedhead], to retract said feed head [sic, feedhead] from the stack of sheets in response to the door being opened."

Scott discloses a toilet paper cabinet. As shown in Figures 1 and 3, the cabinet comprises a back A having a tongue G, a front frame B hinged at C to back A, a feeding roller J mounted on the front frame B, a hand wheel M to operate the feeding roller J, and a package of toilet paper O having a stack of paper sheets secured together by fastener R.

In applying the above-noted test for obviousness, we reach the conclusion that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have mounted the separator 13 of DuBois on a plate to cover the top of the stack of sheets in the paper storage well as suggested by Scott's mounting of his feeding roller on the front frame.

The argument advanced by the appellants (brief, p. 7) does not convince us that the subject matter of claim 5 patentably distinguishes over the applied prior art.

First, the appellants argue that Scott is unrelated to the art area of the present invention. We do not agree. The test for non-analogous art is first whether the art is within the field of the inventor's endeavor and, if not, whether it is reasonably pertinent to the problem with which the inventor was involved. In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). In the present instance, we are informed by the appellants' originally filed specification (p. 1) that this invention relates generally to a sheet feeder. Scott

teaches a sheet feeder and thus falls into the former category of the Wood test. Thus, we conclude that Scott is analogous art.

Second, the appellants argue that the feeding roller does not retract and that the limitations of claim 5 are not taught or suggested by the applied prior art. We do not agree. From the teachings of Scott, an artisan would have understood that to refill the cabinet with a new package of paper sheets that one would pivot front frame B about hinge C to gain access to the tongue G to install the new package of paper sheets. Thus, in our view, the feeding roller J of Scott does retract from the stack of sheets when the frame B is pivoted about hinge C to gain access to the tongue G to install a new package of paper sheets. Accordingly, it is our opinion that Scott does supply sufficient suggestion and motivation for one of ordinary skill in the art to modify DuBois in the manner set forth above.

For the reasons set forth above, the decision of the examiner to reject claim 5 under 35 U.S.C. 103 is affirmed.

Claims 7, 8 and 10

The appellants have grouped claims 2 and 7; claims 3 and 8; and 5 and 10 as standing or falling together.⁴ Thereby, in accordance with 37 CFR § 1.192(c)(7), claims 7, 8 and 10 fall with claims 2, 3 and 5. Thus, it follows that the decision of the examiner to reject claims 7, 8 and 10 under 35 U.S.C. § 103 is also affirmed.

Claims 11 and 12

Dependent claim 12 adds to parent claim 1 the limitation that the apparatus further comprises "a variable speed drive for feeding sheets through said variable length sheetpath to said sheet delivery area." Dependent claim 11 adds the same limitation to its parent claim 6.

Paxon discloses a variable speed sheet transport system used to compensate for slippage between the sheets on the belts.

⁴ See page 4 of the appellants' brief.

The examiner determined (answer, pp. 5-6) that

[i]t would have been obvious to one of ordinary skill in the art to provide the device of DuBois with a variable speed drive to compensate for slippage in view of the showing and teaching of Paxon.

The appellants argue (brief, pp. 7-8) that the subject matter of claims 11 and 12 is not taught or suggested by the applied prior art. We agree.

These claims recite that the variable speed drive is for feeding sheets through the variable length sheetpath to the sheet delivery area. Their parent claims recite that the variable length sheetpath is between the feedhead and the sheet delivery area. Thus, these claims require that the variable speed drive is for feeding sheets from the feedhead to the sheet delivery area. An artisan would understand that DuBois differs from the claimed subject matter by having his feed rollers 41, 42, 64, 65 rotate at a single speed when feeding sheets instead of the claimed variable speed. The teachings of Paxon, in our view, would not have provided any suggestion to drive DuBois' feed rollers 41, 42, 64, 65 at variable speeds. Furthermore, although the provision of a

variable speed sheet transport system as taught by Paxon downstream of DuBois's main feed roller 25 may have been obvious to an artisan, the claimed subject matter of claims 11 and 12 does not read on such a modification since it would not result in a variable speed drive for feeding sheets from the feedhead (i.e., DuBois' separator 13) to the sheet delivery area.

For the reasons set forth above, the decision of the examiner to reject claims 11 and 12 under 35 U.S.C. 103 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 4, 6 and 9 under 35 U.S.C. § 102(b) is affirmed; the decision of the examiner to reject claims 2, 3, 5, 7, 8 and 10 under 35 U.S.C. § 103 is affirmed; and the decision of the examiner to reject claims 11 and 12 under 35 U.S.C. § 103 is reversed.

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED-IN-PART

NEAL E. ABRAMS)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
JOHN P. McQUADE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
JEFFREY V. NASE)	
Administrative Patent Judge)	

Appeal No. 97-2720
Application No. 08/354,387

Page 22

RONALD ZIBELLI
XEROX CORPORATION
XEROX SQUARE 020
ROCHESTER, NY 14644

APPEAL NO. 97-2720 - JUDGE NASE
APPLICATION NO. 08/354,387

APJ NASE

APJ ABRAMS

APJ McQUADE

DECISION: **AFFIRMED-IN-PART**

Prepared By: Delores A. Lowe

DRAFT TYPED: 01 Jun 98

FINAL TYPED: